

**REMARKS**

Claims 9-28 are pending in this application. By this Amendment, Claims 9, 16 and 22 have been amended. Applicant thanks Examiner Durand for considering the above amendments to the claims and for the indication during an interview on July 14, 2003 that the amendments distinguish the claims over the references of record.

In the Office Action, at pages 2-3, Claims 9-11, 14-17, 20-24, 27 and 28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,231,817 (Sadler), in view of U.S. Patent No. 3,381,441 (Condo). Applicant respectfully requests reconsideration of this rejection.

As discussed during the telephone interview on July 14, 2003, independent Claims 9, 16 and 22 are all directed to novel combinations of features including a heat-sealing device comprising a seal jaw and a counter jaw both including an operation surface that faces and contacts the seal zone during transverse sealing under the liquid surface of the liquid food. The operation surface of the counter jaw includes removal/mixture means for removing from the seal zone seal prevention impurity which may remain in the seal zone, and/or mixing the seal prevention impurity including the liquid food with the plastic material that has been softened or melted.

In contrast to the Applicant's claimed invention, U.S. Patent No. 5,231,817 to Sadler discloses a curved surface on a lower jaw 56 to collapse the tube and remove air from the pouch at a level above the liquid surface. The curved surface in Sadler does not remove the solid and/or liquid impurity, but removes air in the tube between the top of the flowable material and the heat sealing element. Furthermore, the lower jaw walls 56 and 57 do not face and contact the seal zone during transverse sealing. Condo is relied upon for a disclosure of an ultrasonic heating means, and does not cure the above-noted deficiencies in Sadler.

For at least the foregoing reasons, Applicant respectfully submits that the prior art fails to disclose or suggest the subject matter recited in each of Claims 9-11, 14-17, 20-24, 27 and 28. Accordingly, Applicant respectfully submits that Claims 9-28 are patentable, and withdrawal of the rejections under 35 U.S.C. § 103(a) is requested.

In the Office Action, at page 4, Claims 12, 18 and 25 are rejected under 35 U.S.C. § 103(a) as reciting subject matter which is allegedly obvious, and therefore allegedly unpatentable, over Sadler, in view of U.S. Patent No. 5,347,795 issued to Fukuda. Claims 13, 19 and 26 are rejected over Sadler, in view of U.S. Patent No. 5,787,690, issued to Konno et al. Applicant respectfully requests reconsideration of these rejections.

None of the secondary references, Fukuda, Condo et al., or Konno et al., overcome the above-noted deficiencies of the Sadler reference. In particular, none of the prior art references disclose or suggest a heat-sealing device comprising a seal jaw and a counter jaw both including an operation surface that faces and contacts the seal zone during transverse sealing under the liquid surface of the liquid food. Accordingly, Applicant respectfully submits that none of the combinations of references relied upon in the Office action teach or suggest the novel combinations of features recited in amended independent Claims 9, 16 and 22. Furthermore, dependent Claims 10-15, 17-21, and 23-28 are patentable for at least the same reasons as the independent claims from which they depend, and moreover for the additional features that they recite.

For at least the foregoing reasons, Applicant respectfully submits that Claims 9-28, each taken as a whole, patentably define over the prior art. Applicant therefore respectfully requests withdrawal of all rejections under 35 U.S.C. § 103(a).

For at least the foregoing reasons, Applicant respectfully submits that Claims 9-28 are in condition for allowance.

## CONCLUSION

For at least the foregoing reasons, Applicant respectfully submits that the present patent application is in condition for allowance. An early indication of the allowability of the present patent application is therefore respectfully solicited.

If Examiner Durand believes that a telephone conference with the undersigned would expedite passage of the present patent application to issue, the Examiner is invited to call Applicant's representative at the number below.

Respectfully submitted,  
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